

**CERTIFICATION APPLICATION REPORT FOR  
FOUR 10.5MW SIMPLE CYCLE TURBINES AT  
CENTURY SUBSTATION**

**PREPARED FOR:**

Alliance Power, Inc.  
13934 Eberle Road  
Bakersfield, California 93313

**FOR SUBMITTAL TO:**

California Energy Commission  
1516 Ninth Street  
Sacramento, California 95814

**PREPARED BY:**

**SCEC**

Air Quality Specialists  
1582-1 N. Batavia Street  
Orange, California 92867  
(714) 282-8240

March, 2001

## INTRODUCTION

Alliance Colton LLC is submitting permit applications to the California Energy Commission (CEC) for two peaking power generation facilities to be constructed in the City of Colton, California. The projects were originally developed in response to the California Independent System Operator (ISO) Summer 2000 Request for Bids for new peaking capacity to serve the State of California. However, as a result of the financial crisis of major California utilities, the projects are now being implemented to fulfill the obligations of a Power Purchase Agreement with the California Department of Water Resources, the primary agency now responsible for purchasing electricity for the citizens of California.

Since the electrical output of the facilities is only 40 MW, these projects would not normally be subject to the extensive review procedures of the normal CEC siting process. The only reason Alliance Colton LLC is submitting a permit to the CEC is to take advantage of the emergency 21-day siting process in order to accelerate project implementation to be able to provide new electrical generating capacity in time for this summer's peak demand period.

Each project is a distributed generation facility that consists of four, 10-MW gas turbine generators located within existing City of Colton electrical substations. The units are almost entirely prepackaged at the factory and shipped to the facility site on skids where minimal field construction is required. Much of the construction complexity associated with larger electrical generating facilities is eliminated by the use of packaged equipment. As a result, several of the topics covered by the CEC siting process may not be applicable to the nature of these distributed generation projects. However, we have provided as much detail as possible in our responses.

## TABLE OF CONTENTS

SECTION	PAGE
1.0 PROJECT DESCRIPTION.....	1
2.0 SITE DESCRIPTION .....	5
3.0 CONSTRUCTION DESCRIPTION .....	7
4.0 POWER PURCHASE CONTRACT .....	8
5.0 AIR EMISSIONS .....	9
6.0 NOISE .....	11
7.0 HAZARDOUS MATERIALS .....	12
8.0 BIOLOGICAL RESOURCES .....	13
9.0 LAND USE .....	14
10.0 PUBLIC SERVICES.....	15
11.0 TRAFFIC AND TRANSPORTATION .....	16
12.0 SOILS AND WATER RESOURCES .....	18
13.0 CULTURAL RESOURCES .....	19
14.0 PALEONTOLOGICAL RESOURCES .....	20
15.0 VISUAL RESOURCES .....	21
16.0 TRANSMISSION SYSTEM ENGINEERING.....	22

## **LIST OF ATTACHMENTS**

ATTACHMENT A	EMERGENCY SITING PROCESS APPLICATION CHECKLIST
ATTACHMENT B	AIR QUALITY SELF CERTIFICATION CHECKLIST FOR SIMPLE-CYCLE GAS TURBINE GENERATION UNITS
ATTACHMENT C	AIR QUALITY APPLICATION FOR SIMPLE-CYCLE GAS TURBINE GENERATION UNITS
ATTACHMENT D	LOCATION MAPS AND SITE DIAGRAMS
ATTACHMENT E	INTERCONNECTION APPLICATION
ATTACHMENT F	ADJACENT PROPERTY OWNERS
ATTACHMENT G	SITE LEASE AGREEMENT
ATTACHMENT H	CONSTRUCTION SCHEDULE
ATTACHMENT I	SCAQMD PERMIT APPLICATION
ATTACHMENT J	NOISE ISOPLETHS
ATTACHMENT K	BIOLOGICAL RESOURCES
ATTACHMENT L	FIRE DEPARTMENT SERVE LETTER
ATTACHMENT M	TRAFFIC AND TRANSPORTATION

## SECTION 1.0

### PROJECT DESCRIPTION

#### 1.1 Owner/Operator

The Century substation project is one of two projects proposed by Alliance Colton, LLC (Alliance) in the City of Colton. The property is owned by the City of Colton and has been leased to Alliance for the purpose of generating electricity. Owner and operator information is summarized in Table 1-1. The CEC application checklist, self-certification and draft permit conditions for the proposed project are included in Attachments A, B and C respectively.

**Table 1-1**  
**Property Owner and Project Owner / Operator**

<b>Property Owner</b>	<b>Equipment Owner and Operator</b>
City of Colton	Alliance Colton, LLC.
Mr. Tom Clark, Director of Utilities	Mr. Brian O'Neill, Vice President
650 North La Cadena Drive	13934 Eberle Road
Colton, California 92324	Bakersfield, California 93313
(909) 370-5105	(661) 836-9873

#### 1.2 Overview of Power Plant and Linear Facilities

Alliance is constructing two distributed generation facilities to meet the obligations of a 10-year Power Purchase Agreement (PPA) with the California Department of Water Resources (CDWR). The project was initially pursued under a *Summer Reliability Agreement* with the California Independent System Operator Corporation (ISO). However, due to the recent financial crisis affecting California utilities, and hence the ISO, CDWR has assumed the lead role in securing additional electrical energy to meet California's needs. To meet CDWR's requirements, Alliance will provide approximately 80 megawatts (MW) of new, permanently-installed capacity at two separate facilities within the City of Colton, California. Alliance proposes to have all of the new generation capacity operational by August 1, 2001, and will supply electricity to the citizens of California through the PPA with CDWR for the next 10 summer periods beginning in 2001.

Four, ten megawatt generators will be installed at Century substation and will interconnect at 66kV via a

generator step-up transformer provided by Alliance Colton. Alliance proposes to use General Electric model 10B1 simple cycle gas turbines rated at 10.5 MW. The turbines will burn pipeline natural gas that will be transported through Southern California Gas Company (SoCal Gas) lines.

The power generating facility is to be located at an existing power substation that is owned by the City of Colton Utilities Department and will utilize existing electrical linear facilities. Utility easements, undeveloped land and commercial property surround the facility. Selection of this site for power development allows existing linear facilities to be utilized. No expansion of electrical linear facilities is proposed, but one additional transformer will be installed.

### **1.3 Structure Dimensions**

Existing structures located at the site are limited to transformers and transmission towers. Each of the four proposed turbines requires a space of approximately 35 ft. x 75 ft. The turbines are approximately 22 ft. high with an exhaust stack elevation of 52 ft.

### **1.4 Site Renderings**

Attachment D contains maps showing facility locations, orthophotographic views of the site and plan and profile drawings.

### **1.5 Maximum Foundation Depth and Cut / Fill Quantities**

Foundation designs will be a combination of slab on grade and piers. The maximum foundation depth is expected to be 14' below finished grade. The Century site is an existing substation. There will be minor fill work performed to improve existing drainage. A maximum fill of approximately 500 cubic yards may be required on-site, at depths up to 1.5 ft.

### **1.6 Conformance with California Building Code**

The structural steel, foundations, switchgear, electrical control enclosures, transformer, gas compression equipment, exhaust silencers and turbines are designed for California Building Code seismic zone 4.

### **1.7 Proposed Operation**

The proposed generation will interconnect with existing facilities at Colton's Century substation. A one-line diagram illustrating these connections, and the interconnection with SCE's transmission system are included in Attachment D.

Annual operating schedules will be determined, in part, by emission levels of the turbines and local air quality regulations. During the first year of operation, operating hours will be limited due to the use of

dry low NO<sub>x</sub> combustion technology. Annual operating hours will increase once Xonon or suitable selective catalytic reduction (SCR) systems are installed during the year 2002 operating period to provide additional NO<sub>x</sub> and CO emission reduction. Once all emission control systems are installed, potential annual operating hours are expected to be 2,100 hours, based upon a NO<sub>x</sub> emission concentration of 5 ppmv, but may increase to as much as 4,000 hours depending upon actual emission rates achieved with Xonon. Final determinations of potential annual operating hours and potential emissions will be made upon the demonstration of controlled emission rates in the year 2002. Additional information regarding the relationship between local air quality compliance programs and potential operating hours is contained in Section 5.0 of this report.

### **1.8 Expected on-line Date**

Alliance is committed to bring the proposed facility on-line by August 1, 2001.

### **1.9 Proposed Duration of Operation**

Alliance will operate under a 10-year contract with CDWR. However, Alliance has secured a 15-year site lease from the City of Colton with an option for an additional 10 years. Therefore, the proposed duration of operation is between 10 and 25 years.

### **1.10 Transmission Interconnection Facilities**

SCE will perform a System Impact Study in association with this project. This study will determine the project's impacts on the larger transmission network in the Colton area and will consider voltage, load flow, and short-circuit impacts. System improvements required to interconnect this project will be the responsibility of Alliance. However, since the interconnection facilities already exist, the only anticipated modifications are minor adjustments to relay settings.

### **1.11 Transmission Interconnection Application**

The Colton electric system connects to SCE at the Colton Substation at 66kV. A one-line diagram illustrating this interconnection is provided in Attachment D. The SCE interconnection application is contained in Attachment E

### **1.12 Downstream Transmission Facilities**

No changes to SCE downstream transmission facilities are required for implementation of this project.

### **1.13 Fuel Interconnection Facilities**

Natural gas fuel interconnections, including meter, will be provided by SoCal Gas. Gas line extensions



will be designed, permitted, and constructed by SoCal Gas, and therefore, SoCal Gas shall be responsible for all impacts associated with the construction of the gas lines.

#### **1.14 Fuel Interconnection Application**

The formal fuel interconnection application for the gas line extension to the Century site was submitted to SoCal Gas in March 2001. A copy is included in Attachment E. SoCal Gas is in the process of developing final routing and cost estimates for the line extension.

#### **1.15 Water Requirements and Treatment**

The proposed simple-cycle turbines will utilize dry low-NO<sub>x</sub> or catalytic combustion technology that does not utilize water to control emissions. Potable water is required, however, for the evaporative coolers on the turbine air intake. Initial analyses indicate that city-supplied water can be used in the coolers without additional treatment. Therefore, no water treatment is needed at the site.

#### **1.16 Water Interconnection Facilities**

A potable water line from the City of Colton currently exists on-site to serve the substation. The City has agreed to provide a tap from this line to serve the generation project.

#### **1.17 Source and Quality of Water Supply**

Potable water from the City of Colton is currently available at the site and will be available for the generation project.

#### **1.18 Water Supply Agreement**

The City has agreed to provide a tap from the existing water line on-site to serve the generation project. Documentation of the City's ability to provide water is included in Attachment E.

## **SECTION 2.0**

### **SITE DESCRIPTION**

#### **2.1 Site Address**

The proposed facility is located at 661 South Cooley Drive in the City of Colton and the County of San Bernardino.

#### **2.2 Parcel Number**

The San Bernardino County Assessors Parcel Number for the facility is 027613174.

#### **2.3 Surrounding Property Owners**

Attachment F contains the names and addresses of people or entities owning property within 500 feet of the proposed facility. Magnetic files containing the same information are stored on a disc located in the front sleeve of cover to this report.

#### **2.4 Existing Site Use**

For the past 14 years the site has been used as an electricity substation owned by the City of Colton. The portion of the site to be expanded for turbine placement has also been owned by the city, but appears to have been used by recreational motorcycles and utility easement access.

#### **2.5 Existing Site Characteristics**

The existing substation is paved graded. An extension of the existing facility will accommodate three of the four turbines. Although this area has not been formally developed. It appears to have been subject to heavy recreational traffic and traffic due to an existing utility easement access road. This area will also be graded as discussed in Section 1.5 of this report. The existing facility is surrounded by a 10 ft high block wall. The extension will also be enclosed by a block wall along the street frontage. The remainder of the facility extension will be enclosed by chain link fence.

#### **2.6 Layout Of Site (Include Plot Plan)**

Attachment D contains a facility plot plan. It is accessible via an existing utility easement.

## **2.7 Zoning and General Plan Designations**

The Century substation is currently zoned for electrical infrastructure, including power generation. The area surrounding the facility is zoned for industrial and commercial use. The General Plan for this portion of the Cooley Ranch Planned Community designates the facility and surrounding land for industrial uses.

## **2.8 Ownership of Site**

The site is owned by the City of Colton Department of Utilities. The project contact at the City of Colton is Mr. Nitin Modi, Electrical Engineering manager. Mr. Modi can be reached at (909) 370-5177.

## **2.9 Site Control**

The lease agreement between the City of Colton and Alliance is contained in Attachment G.

## **2.10 Equipment Laydown Area**

Most of the equipment and material to be installed as part of this project is prepackaged at remote locations, and requires little field assembly. Generally the turbines, generators and related equipment will be delivered directly onto the pads and will not be stored in laydown areas. What little equipment that is envisioned to require temporary laydown placement, can be accommodated within the existing substation site. Alternatively, Alliance is coordinating with the San Bernardino County Flood Control District to use the existing easement for laydown and parking.

## **SECTION 3.0**

### **CONSTRUCTION DESCRIPTION**

#### **3.1 Construction Schedule**

Construction is to be completed and the facilities energized by the 1<sup>st</sup> of August 2001. Attachment H contains a bar chart schedule that shows a breakdown of project activities.

#### **3.2 Workforce Requirements**

The construction phase of the project is not expected to exceed 6 months. At the peak of construction, the on-site workforce is expected to reach a maximum of 20 workers and supervisors. Average workforce for the duration of the project is expected to be approximately 12 workers.

## **SECTION 4.0**

### **POWER PURCHASE CONTRACT**

#### **4.1 Status of Negotiations and Expected Signing Date**

ISO and Alliance signed Summer Reliability Agreement on October 10, 2000. Since that time, Alliance has also signed a Term Sheet with the CDWR for a 10-year PPA. The final contract is being negotiated and should be signed prior to the end of March 2001. As part of the PPA negotiations, the obligations specified in the initial ISO agreement will be assigned to the CDWR contract.

## SECTION 5.0

### AIR EMISSIONS

#### 5.1 Nearest Monitoring Station

The facility is located approximately 5 miles south of the SCAQMD monitoring station located in San Bernardino and approximately 11 miles southeast of the monitoring station in Fontana.

#### 5.2 Self Certification Air Permit Checklist

A complete self-certification air permit checklist is included in Attachment B.

#### 5.3 Air Permit Application

The proposed facility will be operated as a SCAQMD RECLAIM facility. Attachment I contains a copy of the application for permit to construct that was submitted to SCAQMD on March 7, 2001.

Alliance requires delayed implementation of BACT because it has been unable to secure emission control technology for delivery during the peak 2001 operating season. The unavailability of traditional control technology such as SCR is the result of restricted project financing as well as high market demand and long equipment procurement / manufacturing cycles. At the time Alliance secured adequate financial support in early 2001, catalyst vendors were specifying nine-month delivery schedules for SCR systems.

Alliance proposes to install Catalytica Xonon combustion technology to reduce NO<sub>x</sub> and CO emissions. Catalytica and General Electric anticipate that Xonon will provide superior emission reductions relative to SCR at lower costs and without the risks of ammonia slip and incidents that are inherent with SCR systems. Because Xonon is part of the combustion process, it prevents NO<sub>x</sub> formation rather than having to convert NO<sub>x</sub> after it is formed. As an integrated part of the turbine, it presents minimal risk of breakdown and failure, relative to post-combustion emission control technologies.

The proposed facility will be constructed and then operated in two phases. The first phase of operations will commence by August 1, 2001 and will include operation using dry low-NO<sub>x</sub> technology capable of reaching 25 ppmv NO<sub>x</sub>. The second phase will commence upon installation of the Xonon technology or SCR to reduce NO<sub>x</sub> and CO emissions to meet or exceed BACT for prime power simple cycle units. General Electric has committed to provide Alliance with its final delivery schedule of Xonon retrofit packages for the turbines by September 30, 2001. General Electric and Alliance anticipate initiating Xonon installation in July of 2002, and GE has contractually committed to having all installations complete by no later than February 1, 2003.

In its application to SCAQMD and in this application to CEC, Alliance proposes to monitor NO<sub>x</sub> emissions using a continuous emissions monitoring system (CEMs) and will quantify emissions pursuant to SCAQMD Regulation XX protocol for RECLAIM facilities. Rather than operating under annual fuel throughput or operating limits, Alliance proposes to limit NO<sub>x</sub> emissions to ten tons per year. Compliance with the annual limit will be based upon RECLAIM monitoring protocol. Similarly, PM<sub>10</sub> emissions and CO emissions will be limited to four tons per year and 28 tons per year, respectively, to avoid emission offset requirements. Emission rates will be determined based upon start-up source tests. If required by CEC and SCAQMD, annual operating hour limits will then be determined based upon source test results and the selected annual limits for CO and PM<sub>10</sub>.

In both the SCAQMD application and the CEC application, any reference to lower heating value (LHV) is based on 948 Btu/ cf. References to higher heating value (HHV) are based upon 1050 Btu/cf.

#### **5.4 Status of Air Permit Application With Air District**

Applications for permits to construct the turbines were submitted to SCAQMD on March 7, 2001. Alliance has requested that SCAQMD expedite processing to complement the CEC 21-day emergency siting process. SCAQMD is reviewing the application to make a completeness determination and is proceeding to process. SCEC and SCAQMD are coordinating to establish draft operating conditions for the first year of operations.

#### **5.5 Status of Offsets and/or Mitigation fees, as Required**

The project will trigger emission offsets for NO<sub>x</sub> and is required to deliver offsets for the first year of operation prior to issuance of the permit to operate. NO<sub>x</sub> offsets must be provided on a 1:1 ratio and are not subject to distance adjustments. Alliance is requesting that emission offset assistance be provided through the CARB emergency emission offset bank. Any additional offsets will be in the form of RECLAIM trading credits and will be secured through the private market.



## **SECTION 6.0**

### **NOISE**

#### **6.1 Local Noise Requirements**

The City of Colton has an ordinance requiring that the noise generated by the completed facility not exceed 65dBA at the property line, at a height of 6 ft above grade.

#### **6.2 Nearest Sensitive Receptor**

The Century facility is bordered on the south by a motorcycle training facility, and on the southeast by a one-story industrial complex. The industrial complex is greater than 180 feet from the nearest new noise source. The nearest sensitive receptor is located approximately 3,400 feet east of the facility, across Interstate 215.

#### **6.3 Project Noise Level At Nearest Property Line**

Attachment J includes a noise isopleth for the facility to be constructed, including the installation of a 20-foot high acoustical wall to reduce noise levels at the property line nearest to other development. The noise level at the property line closest to the nearest development is projected to be 65 dBA.

#### **6.4 Proposed Mitigation if Required**

Each turbine package is equipped with sound deadeners to reduce the radiated noise from the package. Exhaust silencers are used to reduce the noise levels of the exhaust systems. A 20-foot high acoustical wall is included in the project to reduce noise levels at the property line nearest to other development. If it is found that generated noise levels exceed allowable levels at the Century property lines, Alliance will install acoustical treatments along the boundary to mitigate.

## **SECTION 7.0**

### **HAZARDOUS MATERIALS**

#### **7.1 Type and Volume of Hazardous Materials On-Site**

The only potential hazardous materials (to be determined upon supply bid) that will be routinely used on-site during operation of the facilities are lubrication oil used within the turbines and transformer oil in the new transformer at the Century site. Each turbine holds approximately 850 gallons of lube oil. The oil is not intended to be replaced, so no waste oil will be generated. However, periodic additions of lubricating oil are needed to replace minor losses during operation. Operations personnel will make periodic additions from a drum located in the back of a truck and stored off-site.

During construction, the only additional hazardous materials that may be on-site include gasoline and diesel contained in construction vehicle fuel tanks. Fuel storage will not be permitted in the equipment laydown area.

#### **7.2 Storage Facilities and Containment**

Oil containment will be installed around the new transformer at the Century site and around each turbine package to contain any spills caused by catastrophic failures of the equipment.

## SECTION 8

### BIOLOGICAL RESOURCES

#### **8.1 Legally Protected Species and Their Habitat on Site, Adjacent to Site and Along Right of Way for Linear Facilities**

Based on the proposed project design, previous environmental documents prepared for the project area (e.g., EA/IS - Colton STORS Project 1998; HCP, EA, and IS – Colton Transmission Line and Substation Project 1995), and knowledge of the project site and vicinity, no impacts to legally protected species and their habitat are anticipated to occur as a result of the proposed Century substation project. Additionally, no impacts to protected plant or animal species and habitat associated with the Santa Ana River (e.g., Santa Ana sucker, western yellow-billed cuckoo) are anticipated if the river is spanned or directionally drilled for the natural gas line extension to the Century site, thus avoiding impacts to the river channel and banks.

The analyses for the STORS project includes, among other items, a survey of protected species and habitat. The survey extended 2 miles from the proposed project area and included the area surrounding the Century Substation Facility. The survey indicated that no protected species or sensitive habitats exist near Century. Applicable portions of the STORS analysis are included in Attachment K.

#### **8.2 Designated Critical Habitat on Site or Adjacent to Site**

No wetlands, vernal pools, riparian habitat, or preserves will be impacted by the proposed project since the installation of the turbines and construction of the natural gas and water supply pipelines will occur in previously disturbed areas, primarily paved and dirt/gravel roads.

#### **8.3 Proposed Mitigation As Required**

Based on the results of the air quality modeling performed by SCEC, projected impacts (concentration of NO<sub>2</sub>, PM<sub>10</sub> and CO) are within SCAQMD significance levels established to protect both human health and the environment. In addition, SCEC performed a risk assessment to evaluate potential cancer, chronic and acute health risks. The results indicate that the proposed project meets SCAQMD standards. Based on this information, no adverse impacts to the environment are anticipated as a result of the projected turbine emissions.

No additional mitigation is required for this site.

## **SECTION 9.0**

### **LAND USE**

#### **9.1 Local Land Use Restrictions**

The area surrounding the facility is zoned for commercial and industrial land use. The proposed facility is consistent with the existing designated local land use restrictions. However, a variance from the 50-foot height restriction will be required for the 52 foot exhaust stacks to be installed.

#### **9.2 Use of Adjacent Parcels**

Attachment D includes maps and diagrams showing adjacent land use. The facility is surrounded by a motorcycle test track and training facility to the south. To the southwest lies flood control areas with utility easements. To the southeast lies a developed commercial complex.

#### **9.3 Ownership of Adjacent Parcels**

Attachment F includes a list of adjacent property owners for the site. No expansion of electrical linears is proposed. A natural gas line extension to provide gas service to the substation will be constructed by Socal Gas. The line extension will follow existing Socal easements within roadways as much as possible. A final routing from Socal Gas is expected within one week. Ownership of adjacent parcels will be identified at that time.

#### **9.4 Demographics of Census Tract Where Project is Located**

A population profile for census tract 0071.02 is included in Attachment F.

## **SECTION 10.0**

### **PUBLIC SERVICES**

#### **10.1 Ability to Serve Letter From Fire District**

Attachment L includes an ability to serve letter from the City of Colton Fire Marshall.

#### **10.2 Nearest Fire Station**

The nearest fire station is located approximately two miles from the facility at the intersection of La Cadena Drive and Fogg Street.

## **SECTION 11.0**

### **TRAFFIC AND TRANSPORTATION**

#### **11.1 Level of Service (LOS) Measurements on Surrounding Roads – A.M. and P.M. Peaks**

Existing level of service measurements for the Mt. Vernon Avenue and Cooley Drive intersection are included in Attachment M. Construction and operation of the facility will not have significant traffic impacts.

#### **11.2 Traffic Control Plan for Roads During Construction**

The Century substation is located in a lightly traveled industrial area with little other development in the immediate area. As described in Section 3, all work will be performed within the boundaries of the substation by a maximum workforce of 20 workers. Major equipment deliveries will consist of approximately 24 tractor-trailer shipments over the 2 to 3 month construction period. As a result, major transportation impacts are not anticipated and a formal Traffic Control Plan for work within the substation has not been prepared.

As described in the following section, the only major linear facility construction will be the natural gas line extension to the Century substation. This work will be performed by Socal Gas, and traffic control will be provided according to their standards procedures.

#### **11.3 Traffic Impact of Linear Facility Construction**

The only linear facility to be installed to the Century substation will be the natural gas line extension. Socal Gas is currently evaluating alignment alternatives. However, Socal Gas has indicated that they plan to install the gas line across Mt. Vernon Avenue by jacking rather than cutting an open trench across the road to prevent traffic impacts to this major arterial road.

#### **11.4 Equipment Transport Route**

Equipment shall be delivered to the site via over the road trucking from the point of manufacture/customs.

The turbines will enter the country from the Port of Los Angeles, and will travel via interstate highway I-110 north, then I-10 east to Colton. At the Mt Vernon Street exit, the trucks will travel less than one mile south on Mt. Vernon Street, east on Cooley Drive to the project site.

The generators will enter the state on I-5 traveling south to the Los Angeles area. At the intersection of I-5 and I-10, the trucks will travel east on I-10 to Colton. At the Mt. Vernon Street exit, the trucks will travel less than one mile south on Mt. Vernon Street, east on Cooley Drive to the project site.

The balance of the major equipment (exhaust silencers, gas compressors, switchgear, control enclosure) will enter the state via I-10 traveling west to Colton. At the Mt. Vernon Street exit, the trucks will travel less than one mile south on Mt. Vernon Street, east on Cooley Drive to the project site.

The equipment to be shipped is not oversized, and will require no special permits for transport over the interstate highway system. The short distance on City streets will not cause undue impact to local traffic flows, and if necessary, these deliveries can be scheduled at off-peak periods. No significant traffic impacts are anticipated with equipment shipment to the Century substation.

### **11.5 Parking Requirements**

Parking for the Century facility during construction will be on the site, and along a temporary easement from the San Bernardino County Flood Control District. Alliance will develop a parking plan for the project.

## **SECTION 12.0**

### **SOILS AND WATER RESOURCES**

#### **12.1 Wastewater Volume, Quality, Treatment**

Wastewater will not be generated at the facility during normal operations. Wastewater from periodic turbine cleaning operations (compressor washes) will be collected and removed from the site for disposal at appropriate facilities.

#### **12.2 Status of Permits for Wastewater Discharge or Draft Permit (WDR/NPDES)**

Not applicable

#### **12.3 Draft Erosion Prevention and Sedimentation Control Plan or Mitigation Strategy**

The project is being constructed at an existing City of Colton substation. At the Century substation, additional site work will be performed outside the existing fence line to extend the finished site to install three additional turbine packages. The area affected minimal. Most of the construction will consist of setting and interconnection packaged equipment, with minimal excavation associated with foundation installation and final site grading. As part of the site work, the Contractor (Black & Veatch) is required to prepare an erosion and runoff plan for the project. Black & Veatch has performed construction work for the City of Colton previously, including construction of the Drews substation. They will be able to draw on past project experience to ensure proper site erosion mitigation measures are followed. Final site preparation of the new area will be consistent with site erosion and sedimentation control mechanisms for the existing substation.

#### **12.4 Spill Prevention/Water Quality Protection Plans**

Adequate spill containment will be provided for the turbine packages and transformer to prevent oil spills in the event of catastrophic equipment failure. Contractor is preparing a Spill Prevention and Water Quality Protection Plan for construction activities. Most of the construction will consist of setting and interconnection packaged equipment, with minimal excavation associated with foundation installation and final site grading.



## **SECTION 13.0**

### **CULTURAL RESOURCES**

#### **13.1 Identification of Known Historic/Prehistoric Sites**

Construction activities under this project will occur, in part, on previously disturbed electrical substation property owned by the City of Colton. There are no known historic or prehistoric resources at the existing substation or at the proposed extension.

#### **13.2 Proposed Mitigation if Required**

Cultural resources are not believed to be present onsite that require mitigation. If such resources are discovered during excavation, work will be curtailed and appropriate agencies will be notified.

#### **13.3 Notification of Native Americans**

Based upon recent communication with CEC, Alliance understands that if notification of Native Americans is required, such notification will be coordinated by CEC.

## **SECTION 14.0**

### **PALEONTOLOGICAL RESOURCES**

#### **14.1 Identification of Known Paleontologic Sites**

Construction activities under this project will occur on previously disturbed electrical substation property owned by the City of Colton. The site has undergone significant construction activities, and prior site reviews have not revealed any known paleontological resources.

#### **14.2 Proposed Mitigation if Required**

If paleontological resources are discovered during excavation of the site, work will be curtailed and appropriate agencies will be notified.

## **SECTION 15.0**

### **VISUAL RESOURCES**

#### **15.1 Plan for Landscaping and Screening to Meet Local Requirements**

The site expansion will be enclosed on one side by a 20ft. block wall. The City of Colton has determined that no new landscaping is required.

#### **15.2 Full Size Color Photo of the Site and Rendering of Proposed Facility With Any Proposed Visual Mitigation if Available**

Facility renderings are not available at this time. Facility plans are included in Attachment D.

## SECTION 16.0

### TRANSMISSION SYSTEM ENGINEERING

#### **16.1 Conformance With Title 8, High Voltage Electrical Safety Orders, CPUC General Order 95 (Or NESC), CPUC Rule 21, PTO Interconnection Requirements, and National Electric Code**

All construction and installation work shall be performed in conformance with the latest editions of the “Green Book” or the Standard Specifications for Public Works construction, as written and promulgated by the Joint Cooperative Committee of the Southern California Chapter of the American Public Works Association, the National Electrical Code, (NEC applicable to 600V class and below only) the National Electrical Safety Code, and CPUC General Orders 95 and 128. The electrical design of the new facilities will be in accordance with the latest version of the applicable industry codes and standards including applicable standards of the American National Standards Institute, the American Society of Mechanical Engineers, and the Institute of Electrical and Electronics Engineers. Applicable federal, state, and local codes and standards will also be observed.

The phasing will be based on Colton’s standard connection of A phase – H1, X1; C phase – H2, X2; B phase – H3, X3, and the low voltage lags by 30 degrees on the 66/12kV transformer. Phase rotation is A-C-B, with Colton’s A phase connected to generator terminal T1, B phase connected to T2, and C phase connected to T3. Physical bus arrangements will match the existing facilities N-S and E-W.

**ATTACHMENT A**

**EMERGENCY SITING APPLICATION PROCESS APPLICATION CHECKLIST**

**ATTACHMENT B**

**AIR QUALITY SELF CERTIFICATION CHECKLIST  
FOR SIMPLE CYCLE GAS TURBINE GENERATION UNITS**

**ATTACHMENT C**

**AIR QUALITY APPLICATION FOR SIMPLE-CYCLE  
GAS TURBINE GENERATION UNITS**

## **ATTACHMENT D**

### **LOCATION MAPS AND SITE DIAGRAMS**



**ATTACHMENT E**

**INTERCONNECTION APPLICATION**

**ATTACHMENT F**

**ADJACENT PROPERTY OWNERS / LAND USE**

**ATTACHMENT G**

**SITE LEASE AGREEMENT**

**ATTACHMENT H**

**CONSTRUCTION SCHEDULE**

**ATTACHMENT I**

**SCAQMD PERMIT APPLICATION**

## **ATTACHMENT J**

### **NOISE ISOPLETHS**

**ATTACHMENT K**  
**BIOLOGICAL RESOURCES**

**ATTACHMENT L**

**FIRE DEPARTMENT SERVE LETTER**



**ATTACHMENT M**  
**TRAFFIC AND TRANSPORTATION**